

VPKBIET, Baramati
Department of Mechanical Engineering
and
Department of Electrical Engineering

Visit Report: Auto Cluster, Pimpri Chinchwad, Pune
and
i-Tech Robotics, Chakan, Pune

Date of Visit: 23rd June 2025

1. Introduction

A one-day industrial visit was organized by the **Department of Mechanical Engineering and Department of Electrical Engineering** on **23rd June 2025** to **Auto Cluster, Pimpri Chinchwad, Pune** and **i-Tech Robotics, Chakan, Pune**. The primary objective of the visit was to provide faculty members with exposure to cutting-edge developments in the field of automobiles, EVs, robotics and automation in industrial processes.

The visit was attended by the following four faculty members:

1. Dr. Manisha Lande, Mechanical Engineering
 2. Mrs. Prachi Kale, Mechanical Engineering
 3. Mrs. Pooja Jaiswal, Electrical Engineering
 4. Mr. Pavan Upadhye, Electrical Engineering
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2. Objectives of the Visit

- To explore the latest technologies used in automobiles and EVs, mobile and industrial robots in real-world applications.
 - To identify future collaboration opportunities for student internships, projects, and technical training programs.
 - To sign MoU between VPKBIET, Baramati and Auto Cluster, Pimpri Chinchwad, Pune.
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3. Highlights of the Visit

3.1 Auto Cluster, Pimpri Chinchwad, Pune

3.1.1 Company Overview

Auto Cluster is a government-supported innovation hub and common facility centre aimed at accelerating growth among small and medium-sized enterprises (SMEs) in the automotive and engineering sectors. It was established in 2006–07 under India's Industrial Infrastructure Upgradation Scheme (IIUS) of the Ministry of Commerce and Industry, with support from the Maharashtra government, Pimpri-Chinchwad Municipal Corporation (PCMC), and MCCIA.

3.1.2 Demonstrations and/or Discussions

The team provided a walk through which included live demonstrations and/or discussions on:

- **Prototyping & Manufacturing:** Rapid prototyping (3D printing), prototype production, machine shop services.
- **Testing Facilities:** Environmental testing lab, rubber and polymer testing (NABL-accredited), large-bed CMM metrology.
- **Design, Training & Events:** In-house design centre, CAD/CAM training, incubation support for startups, plus exhibition auditoriums and seminar halls.
- **Industry–Academia Connect:** Hosts seminars and workshops (e.g., EV Mobility ecosystem support, advanced digital tech for MSMEs), and has MoUs with educational institutions.



Exchange of signed MoU between VPKBIET, Baramati and Auto Cluster, Pimpri Chinchwad, Pune

3.2 i-Tech Robotics, Chakan, Pune

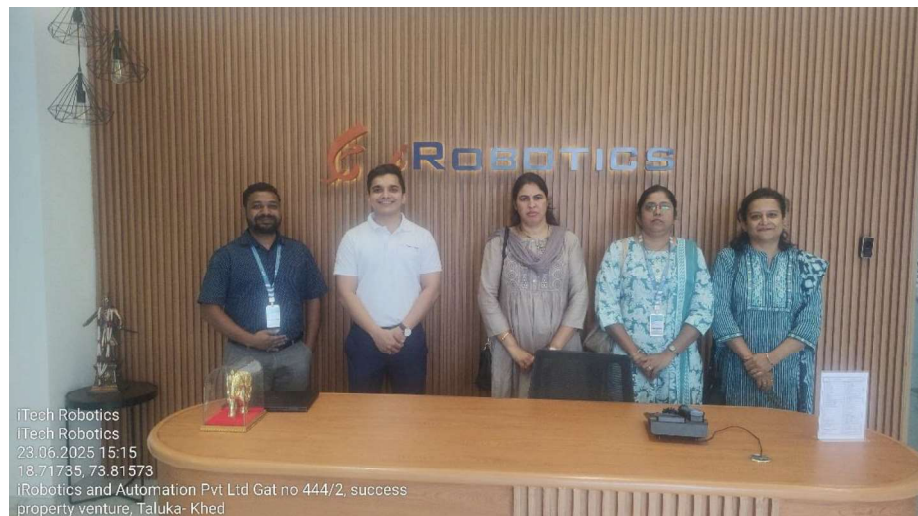
3.2.1 Company Overview

i-Tech Robotics is a Pune-based engineering company specializing in industrial robotics and automation, headquartered in Chakan. The company was founded in August 2013 and it's a privately held business. The company designs, manufactures, and integrates automated systems—especially robotic welding, material handling, inspection systems, specialized machines, jigs, and fixtures. With over 500 major projects and 2,000+ robot installations worldwide, iTech has partnered with leading OEMs like Tata, Mahindra, Bajaj, and operates across sectors including automotive, heavy machinery, electronics, defence, railways, and chemicals.

3.2.2 Demonstrations and/or Discussions

The team provided a walk through which included live demonstrations and/or discussions on:

- **Robotic Welding Automation** (MIG, TIG, spot welding)
- **Material Handling & Pick-and-Place** Systems
- **Vision-based Inspection** Solutions for quality control
- **Battery-assembly Automation** for EV components
- **Customized Special-Purpose Machines (SPMs)** & press-line automation





Discussion and Demonstration of Robotic Applications at i-Tech Robotics, Chakan, Pune

4. Key Takeaways

- **MoU was signed** between VPKBIET, Baramati and Auto Cluster, Pimpri Chinchwad, Pune regarding collaboration opportunities for student internships, projects, and technical training programs.
- Personnels from **i-Tech Robotics, Chakan, Pune** have agreed to discuss with their management body about possible collaboration opportunities for student internships, projects, and technical training programs.

5. Conclusion and Recommendations

The visit to **Auto Cluster, Pimpri Chinchwad, Pune** and **i-Tech Robotics, Chakan, Pune** was highly informative and beneficial for the faculty team. It not only broadened our understanding in the field of automobiles, EVs, robotics and automation in industrial processes but also highlighted the potential areas of academic-industry collaboration.

Recommendations:

- Students internships can be arranged as a part of the MoU signed between VPKBIET, Baramati and Auto Cluster, Pimpri Chinchwad, Pune.
- An industrial visit or workshop for students can be arranged at **Auto Cluster, Pimpri Chinchwad, Pune**.
- Experts from **Auto Cluster, Pimpri Chinchwad, Pune** can be invited for guest lectures or technical talks.

- An industrial visit for students can be arranged at **i-Tech Robotics, Chakan, Pune**.
- Follow up for possible industry-academia collaboration need to be taken from **i-Tech Robotics, Chakan, Pune** in near future.

We sincerely thank **Auto Cluster, Pimpri Chinchwad, Pune** and **i-Tech Robotics, Chakan, Pune** for their hospitality and insightful discussions and look forward to continued engagement in the future.

Prepared By:

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